

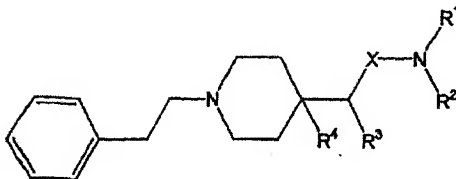
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

/CC/  
NE/I  
12/15/08

1. (Previously Presented) Substituted 1-phenethylpiperidine compounds of the formula I



I,

in which

X denotes a methylene ( $\text{CH}_2$ ) group,

$\text{R}^1$  denotes an optionally at least mono-substituted aryl or heteroaryl group,

$\text{R}^2$  denotes H,  $\text{COR}^5$ ,  $\text{SO}_2\text{R}^5$ , an optionally at least mono-substituted, saturated, branched or unbranched aliphatic  $\text{C}_{1-10}$  group, an optionally at least mono-substituted, at least mono-unsaturated, branched or unbranched aliphatic  $\text{C}_{2-10}$  group, an optionally at least mono-substituted, saturated or at least mono-unsaturated cycloaliphatic  $\text{C}_{3-8}$  group, an optionally at least mono-substituted aryl or heteroaryl group or an optionally at least mono-substituted aryl or

heteroaryl group attached via a C<sub>1-3</sub> alkylene group, R<sup>3</sup> and R<sup>4</sup> each separately denote H or together denote a bond,

R<sup>5</sup> denotes an optionally at least mono-substituted, saturated, branched or unbranched aliphatic C<sub>1-10</sub> group, an optionally at least mono-substituted, at least monounsaturated, branched or unbranched aliphatic C<sub>2-10</sub> group, an optionally at least mono-substituted, saturated or at least mono-unsaturated cycloaliphatic C<sub>3-8</sub> group, an optionally at least mono-substituted aryl or heteroaryl group or an optionally at least mono—substituted aryl or heteroaryl group attached via a C<sub>1-3</sub> alkylene group,

as a free base or a corresponding physiologically acceptable salt and corresponding racemates, enantiomers and diastereomers.

2. Cancelled

<sup>2</sup>  
~~3.~~ (Previously Presented) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that R<sup>1</sup> denotes an optionally at least mono-substituted aryl group.

<sup>3</sup>  
~~4.~~ (Previously Presented) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that R<sup>2</sup> denotes H, COR<sup>5</sup>, SO<sub>2</sub>R<sup>5</sup> or denotes a C<sub>1-6</sub> alkyl group.

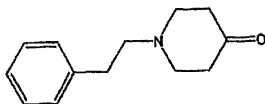
<sup>4</sup>  
~~5.~~ (Previously Presented) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that R<sup>3</sup> and R<sup>4</sup> each denote H.

<sup>5</sup>  
~~6.~~ (Previously Presented) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that the group R<sup>5</sup> denotes a C<sub>1-6</sub> alkyl group or denotes an unsubstituted or at least mono-substituted aryl group.

<sup>6</sup>  
~~7.~~ (Currently Amended) Substituted 1-phenethylpiperidine compounds according to claim [[8]] 6, where the R<sup>5</sup> denotes a C<sub>1-6</sub> alkyl group.

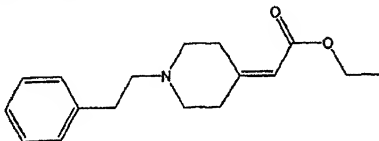
<sup>14</sup>  
~~8.~~ (Previously Presented) A process for the production of substituted 1-phenethylpiperidine compounds of the formula I according to claim 1, characterised in that

(a) 1-phenethylpiperidin-4-one of the formula II



II

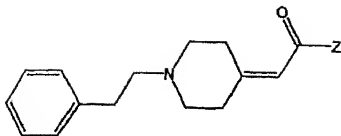
is reacted with triethyl phosphonoacetate in solution to yield (1-phenethylpiperidin-4-ylidene)-ethyl acetate of the formula III



III

and this is optionally purified in accordance with conventional methods and/or optionally isolated in accordance with conventional methods,

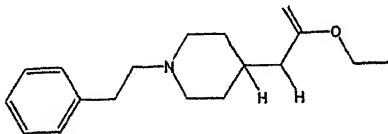
(b) optionally the (1-phenethylpiperidin-4-ylidene)-ethyl acetate of the formula III is converted in accordance with conventional methods into a compound of the formula IV,



IV

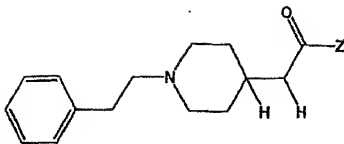
in which Z denotes a group which activates the carbonyl carbon atom for reaction with an amine, the compound of the formula IV thus obtained is optionally purified in accordance with conventional methods and/or optionally isolated in accordance with conventional methods,

(c) optionally at least one of the compounds of the formula III or IV in solution is reduced to yield a corresponding compound of the formula III'



III'

or to yield a corresponding compound of the general formula IV'



IV'

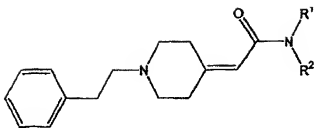
and the corresponding compound is optionally purified in each case in accordance with conventional methods and/or optionally isolated in each case in accordance with conventional methods,

(d) at least one compound of the formula III, III', IV and IV' in solution is reacted with a primary or secondary amine of the formula V,



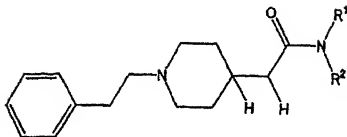
V

in which  $R^1$  and  $R^2$  have the meaning according to formula I, to yield at least one compound of the formula Id



Id

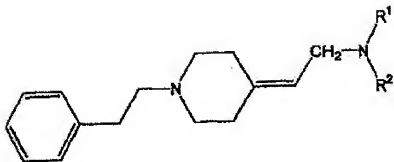
and/or at least one compound of the formula Id'



Id'

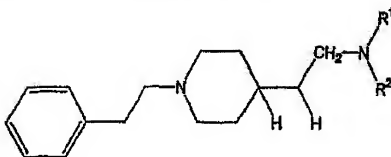
and this is optionally purified in each case in accordance with conventional methods and/or optionally isolated in each case in accordance with conventional methods,

(e) optionally at least one of the compounds of the general formula Id and/or Id' is converted by reduction in solution into at least one compound of the formula Ie



1e

and/or at least one compound of the general formula 1e'



1e'

in which R<sup>1</sup> and R<sup>2</sup> each have the meaning according to claim 1, and this is optionally purified in each case in accordance with conventional methods and/or optionally isolated in each case in accordance with conventional methods,

(f) optionally at least one compound of the formula 1e and/or 1e', in which the group R<sup>2</sup> denotes H, is converted in accordance with conventional methods known to the person skilled in the art into at least one compound of the formula 1e and/or 1e', in which the residue R<sup>2</sup> denotes COR<sup>3</sup>, SO<sub>2</sub>R<sup>3</sup>, an optionally at least mono-substituted, saturated, branched or unbranched aliphatic C<sub>1-10</sub> group, an optionally at least mono-substituted, at least mono-unsaturated, branched or unbranched aliphatic C<sub>2-10</sub> group, an optionally at least mono-substituted, saturated or at least

monounsaturated cycloaliphatic C<sub>3-8</sub> group, an optionally at least mono-substituted aryl or heteroaryl group or denotes an optionally at least mono-substituted aryl or heteroaryl group attached via a C1-3 alkylene group, wherein the group R<sup>5</sup> has the above-stated meaning and this is optionally purified in accordance with conventional methods and/or optionally isolated in accordance with conventional methods.

<sup>15</sup>

~~9.~~ (Previously Presented) A process according to claim 8, characterised in that Z denotes OH, Cl or a succinimide group.

<sup>16</sup>

~~10.~~ (Previously Presented) A process according to claim 8, characterised in that the reduction to yield the compounds of formula III' or IV' is performed with hydrogen in the presence of a transition metal catalyst.

<sup>17</sup>

~~11.~~ (Previously Presented) A process according to claim 8, characterised in that the reaction with a primary or secondary amine of the formula V is performed in the presence of n-butyllithium.

<sup>18</sup>

~~12.~~ (Previously Presented) A process according to claim 8, characterised in that reduction to yield a compound of the formula Ie or Ie' proceeds with aluminium hydride (alane) produced in situ from lithium aluminium hydride and aluminium trichloride in an organic solvent.

<sup>11</sup>

~~13.~~ (Previously Presented) A pharmaceutical preparation containing at least one substituted 1-phenethylpiperidine compound according to claim 1 and optionally

~~physiologically acceptable auxiliary substances:~~

matrix materials, fillers, solvents, diluents, surface-active substances, dyes, preservatives, suspending agents, slip agents, lubricants, aromas and binders.
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14-23. Cancelled

~~24. (Withdrawn) A method of combatting of pain, or migraine, diarrhea, urinary incontinence, pruritus, inflammatory reactions, allergic reactions, dependency on alcohol and/or drugs and/or medicines, abuse of alcohol and/or drugs and/or medicines, inflammation or for local anesthesia comprising administering to a patient in need thereof of an effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.~~



<sup>25</sup>. (Previously Presented) A compound of claim 1 selected from the group consisting of

[2-(1-Phenethylpiperidin-4-yl)-ethyl]phenylamine,

(4-Methoxyphenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

2-[2-(1-Phenethylpiperidin-4-ypethylamino)]phenol,

[2-(1-Phenethylpiperidin-4-ypethyl)]-(3-trifluoromethylphenyl)amine,

(3-Methoxyphenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

4-[2-(1-Phenethylpiperidin-4-ypethylamino)]phenol,

(4-Chloro-2-fluorophenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

3-[2-(1-Phenethylpiperidin-4-yl)ethylamino]phenol,

N-(3-Chloro-4-methoxyphenyl)-N-[2-(1-phenethylpiperidin-4-yl)ethyl]acetamide,

N-(3-Chloro-4-methoxyphenyl)-N-[2-(1-phenethylpiperidin-4-yl)ethyl]propionamide,

N-(3-Chloro-4-methoxyphenyl)-N-[2-(1-phenethylpiperidin-4-yl)ethyl]benzamide,

N-[2-(1-Phenethylpiperidin-4-yl)ethyl]-N-(3-trifluoromethylphenyl)acetamide,

N-[2-(1-Phenethylpiperidin-4-yl)ethyl]-N-phenylacetamide,

N-[2-(1-Phenethylpiperidin-4-yl)ethyl]-N-phenylbenzamide,

(4-Methylpyridin-2-yl)-[2-(1-phenethylpiperidin-4-yl)-ethyl]amine and

(4,6-Dimethyl-pyridin-2-yl)-[2-(1-phenethylpiperidin-4-ylidene)-ethyl]amine.

<sup>26</sup>. (Previously Presented) A method of combatting pain comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

<sup>27</sup>. (Previously Presented) A method of treating migraine comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

28. (Withdrawn) A method of treating diarrhea comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

29. (Withdrawn) A method of treating urinary incontinence comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

30. (Withdrawn) A method of treating pruritus comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

31. (Withdrawn) A method of treating inflammatory reactions comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

32. (Withdrawn) A method of treating allergic reactions comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

33. (Withdrawn) A method of treating dependency on alcohol and/or drugs and/or medicines, or abuse of alcohol and/or drugs and/or medicines, comprising administering to a patient in need thereof of an effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

34. (Withdrawn) A method of treating inflammation comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

35. (Withdrawn) A method of local anesthesia comprising administering to a patient in need thereof of an effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

<sup>8</sup>  
36. (Previously Presented) Substituted 1-phenethylpiperidine compounds according to claim 4, characterised in that R<sup>2</sup> denotes H or COR<sup>5</sup>.

<sup>9</sup>  
37. (New) Substituted 1-phenethylpiperidine compounds according to claim 36, characterised in that R<sup>2</sup> denotes H.

<sup>10</sup>  
38. (New) A compound of claim 25, selected from the group consisting of:

[2-(1-Phenethylpiperidin-4-yl)-ethyl]phenylamine,

(4-Methoxyphenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

2-[2-(1-Phenethylpiperidin-4-ypethylamino)]phenol,

[2-(1-Phenethylpiperidin-4-ypethyl)- (3-trifluoromethylphenyl)amine,

(3-Methoxyphenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

4-[2-(1-Phenethylpiperidin-4-ypethylamino)]phenol,

(4-Chloro-2-fluorophenyl)-[2-(1-phenethylpiperidin-4-yl) ethyl]amine,

3-[2-(1-Phenethylpiperidin-4-yl)ethylamino]phenol,

(4-Methylpyridin-2-yl)-[2-(1-phenethyl-piperidin-4-y1)-ethyl]amine and

(4,6-Dimethyl-pyridin-2-yl)-[2-(1-phenethylpiperidin-4-ylidene)-ethyl] amine.